

CLAIMS

- 5 1. A method for reducing the incidence of mastitis in a dairy animal, the
method comprising the step of:
topically applying an antimicrobial composition to the teats of the animal, the
composition comprising (1) from about 60% to about 95%
of a lipophilic polar solvent selected from the group consisting of
10 propylene glycol, ethylene glycol, glycerol, isopropanol, and sorbitol, by
weight of the composition, (2) at least two C₈ to C₁₄ fatty acids in a total
amount of from about 0.5% to about 5% by weight of the composition; and
(3) devoid of sufficient fatty acid ester to substantially improve the
antimicrobial activity of the composition.
- 15 2. The method of claim 1, where the lipophilic polar solvent is propylene
glycol.
3. The method of claim 1, where the lipophilic polar solvent is present in an
amount from about 60% to about 75% by weight of the composition.

4. A method for reducing the incidence of mastitis in a dairy animal, the method comprising the step of:
- topically applying an antimicrobial composition to the teats or udder of the animal,
- the composition comprising:
- 5 from about 50% to about 99% of a lipophilic polar solvent selected from the group consisting of propylene glycol, ethylene glycol, glycerol, isopropanol, and sorbitol, by weight of composition;
- a C₈ to C₁₄ fatty acid in the total amount from about 0.5% to 5% by weight of the composition; and
- 10 devoid of sufficient fatty acid ester to substantially improve the antimicrobial activity of the composition.
5. The method of claim 4 wherein the composition further comprises a second C₈ to C₁₄ fatty acid.
6. The method of claim 4, wherein the lipophilic polar solvent is propylene
- 15 glycol.
7. The method of claim 4 wherein the lipophilic polar solvent is present in the amount from about 50% to about 75% by weight of composition.
8. The method of claim 4 wherein the lipophilic polar solvent is present in the amount from about 60% to about 99% by weight of composition.
- 20 9. The method of claim 4 wherein the fatty acid is caprylic acid.
10. The method of claim 4 wherein the fatty acid is capric acid.

11. A method for reducing the incidence of mastitis in a dairy animal, the method comprising the step of:

topically applying an antimicrobial composition to the teats of the animal, the composition comprising; from about 50% to 99% by weight of the composition a lipophilic polar solvent having a dielectric constant greater than 25, a C₈ to C₁₄ fatty acid in the total amount of from about 0.5% to about 5% by weight of the composition, and devoid of sufficient fatty acid ester to substantially improve the antimicrobial activity of the composition.

12. The method of claim 11, wherein the lipophilic polar solvent is selected from a group consisting of propylene glycol, ethylene glycol, glycerol, isopropanol, and sorbitol.

13. The method of claim 11, wherein the antimicrobial composition further comprises a second C₈ to C₁₄ fatty acid.

14. The method of claim 11, wherein the antimicrobial composition has a pH below about 4.

15. The method of claim 11, wherein the antimicrobial composition further comprises a second C₁₂ or C₁₄ fatty acid.

16. The method of claim 11, wherein the composition further comprises a C₇ fatty acid.

17. A method for reducing the incidence of mastitis in a dairy animal, the method comprising the step of:

topically applying an antimicrobial composition to the teats or udder of the animal, the composition comprising:

5 from about 50% to about 99% of a lipophilic polar solvent having a dielectric constant greater than 25 by weight of composition;
a C₇ to C₁₄ fatty acid in the total amount from about 0.5% to 5% by weight of the composition; and
devoid of sufficient fatty acid ester to substantially improve the antimicrobial
10 activity of the composition.

18. The method of claim 17 wherein the composition further comprises a second C₇ to C₁₄ fatty acid.

19. The method of claim 17, wherein the lipophilic polar solvent is selected from the group consisting of propylene glycol, ethylene glycol, glycerol, isopropanol, and
15 sorbitol.

20. The method of claim 17 wherein the lipophilic polar solvent is present in the amount from about 50% to about 75% by weight of composition.

21. The method of claim 17 wherein the lipophilic polar solvent is present in the amount from about 60% to about 99% by weight of composition.

20 22. The method of claim 17 wherein the fatty acid is caprylic acid.

23. The method of claim 17 wherein the fatty acid is capric acid.

24. An antimicrobial composition for reducing the incidence of mastitis in a dairy animal, the composition comprising:

from about 50% to about 99% of a lipophilic polar solvent having a dielectric constant greater than 25, by weight of the composition;

5 a C₇ to C₁₄ fatty acid in the total amount of from about 0.5% to about 5% by weight of the composition; and

devoid of sufficient fatty acid ester to substantially improve the antimicrobial activity of the composition.

25. The antimicrobial composition of claim 24, wherein the lipophilic polar
10 solvent is selected from a group consisting of: propylene glycol, ethylene glycol, glycerol, isopropanol, and sorbitol.

26. The antimicrobial composition of claim 24, wherein the composition further comprises a second C₇ to C₁₄ fatty acid.

27. The antimicrobial composition of claim 24, wherein the antimicrobial
15 composition has a pH below about 4.

28. The antimicrobial composition of claim 24, wherein the fatty acid mixture consists essentially of C₇, C₈, C₉, C₁₀, C₁₂ and C₁₄ fatty acids.